

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Withdrawn): A fabrication system for a liquid crystal display device, comprising:

an alignment layer line for forming an alignment layer on a first substrate and a second substrate, the first substrate and the second substrate being separately supplied thereto;

a spacer scattering line for scattering spacers on one of the first substrate and the second substrate; a sealant coating line for coating a sealant material on one of the first substrate and the second substrate;

an assembling line for bonding the first and second substrates together;

a cutting line for separating the bonded first and second substrates into a plurality of liquid crystal display cells; and

a liquid crystal layer line for injecting liquid crystal material into each of the liquid crystal display cells, wherein the alignment layer line, the spacer scattering line, the sealant coating line, the assembling line, the cutting line, and the liquid crystal line are positioned along a single fabrication line.

Claim 2. (Withdrawn): The fabrication system according to claim 1, wherein the first substrate includes a plurality of thin film transistors and the second substrate includes a color filter.

Claim 3. (Withdrawn): The fabrication system according to claim 1, wherein the alignment layer line comprises:

an alignment layer coating line for coating the alignment layer on the first and second substrates;

a plasticizing line for plasticizing the alignment layers of the first and second substrates; and

an aligning controlling force providing line for providing an aligning controlling force to the plasticized alignment layers of the first and second substrates.

Claim 4. (Withdrawn): The fabrication system according to claim 3, wherein the aligning controlling force providing line is a rubbing line for rubbing the alignment layers.

Claim 5. (Withdrawn): The fabrication system according to claim 1, wherein the liquid crystal layer line comprises:

a liquid crystal injecting line for injecting the liquid crystal material into the liquid crystal display cells through a liquid crystal injection hole; and

an encapsulating line for encapsulating the liquid crystal injection hole.

Claim 6. (Withdrawn): The fabrication system according to claim 1, further comprising at least one buffer line disposed between each of the alignment layer line, the spacer scattering line, the sealant coating line, the assembling line, the cutting line, and the liquid crystal layer line to synchronize movement of the first and second substrates.

Claim 7. (Withdrawn): The fabrication system according to claim 1, further comprising an inspecting line for inspecting the liquid crystal display cells.

Claim 8. (Withdrawn): A fabrication system for a liquid crystal display device, comprising:

a first fabrication line separately supplied with a first substrate and a second substrate to form an alignment layer on the first substrate and the second substrate, scatter spacers on the first substrate, coat a sealant material on the second substrate, bond the first and second substrates together, and cut the bonded first and second substrates into a plurality of liquid crystal display cells; and

a second fabrication line for injecting liquid crystal material into each of the liquid crystal display cells to form a liquid crystal material layer and for inspecting the liquid crystal display cells.

Claim 9. (Currently Amended): A fabrication system for a liquid crystal display device, comprising:

an alignment layer line for forming an alignment layer on a first substrate and a second substrate, the first substrate and second substrate being separately supplied to the alignment layer line;

a liquid crystal layer line for dispensing liquid crystal material on one of the first substrate and the second substrate;

a sealant coating line for coating a sealant material on one of the first substrate and the second substrate;

an assembling line for bonding the first and second substrates together; and

a cutting line for separating the bonded first and second substrates into a plurality of liquid crystal display cells,

wherein the alignment layer line, the liquid crystal layer line, the sealant coating line, the assembling line, and the cutting line are positioned physically connected along a single fabrication line.

Claim 10. (Original): The fabrication system according to claim 9, wherein the first substrate includes a plurality of thin film transistors and the second substrate includes a color filter.

Claim 11. (Original): The fabrication system according to claim 9, further comprising patterned spacers formed on the first substrate.

Claim 12. (Original): The fabrication system according to claim 9, wherein the alignment layer line comprises:

an alignment layer coating line for coating an alignment layer material on the first and second substrates;

a plasticizing line for plasticizing the alignment layer material; and

an aligning controlling force providing line for providing an aligning controlling force to the plasticized alignment layer material.

Claim 13. (Original): The fabrication system according to claim 9, further comprising:

at least one buffer line disposed between each of the alignment layer line, the liquid crystal layer line, the sealant coating line, the assembling line, and the cutting line to synchronize movement of the first and second substrates.

Claim 14. (Original): The fabrication system according to claim 9, further comprising an inspecting line for inspecting the liquid crystal display cells.

Claim 15. (Withdrawn): A method of fabricating a liquid crystal display device, comprising:

providing a first substrate and a second substrates separately to a unified fabrication line;

forming an alignment layer on the first substrate and the second substrate;

scattering spacers on one of the first substrate and the second substrate;

coating a sealant material on one of the first substrate and the second substrate;

bonding the first and second substrates together; separating the bonded first and second substrates into a plurality of liquid crystal display cells; and

forming a liquid crystal material layer within each of the liquid crystal display cells.

Claim 16. (Withdrawn): The method according to claim 15, further comprising: forming a plurality of thin film transistors on the first substrate; and forming a color filter layer on the second substrate.

Claim 17. (Withdrawn): The method according to claim 15, wherein the forming an alignment layer comprises:

coating an alignment layer material separately on the first and second substrates;
plasticizing the coated alignment layer material; and
providing an aligning controlling force to the plasticized alignment layer material.

Claim 18. (Withdrawn): The method according to claim 15, wherein the forming a liquid crystal material layer comprises:

injecting liquid crystal material into the liquid crystal display cell through a liquid crystal injection hole; and encapsulating the liquid crystal injection hole.

Claim 19. (Withdrawn): The method according to claim 15, further comprising synchronizing movement of the first and second substrates by maintaining one of the first and second substrates in a buffer.

Claim 20. (Withdrawn): The method according to claim 15, further comprising inspecting the liquid crystal display cells.

Claim 21. (Withdrawn): A method of fabricating a liquid crystal display device, comprising:

supplying a first substrate and a second substrate to an in-line fabrication system to form an alignment layer on the first substrate, form spacers on the first substrate, coat a sealant material on the second substrate, bond the first and second substrates together, and separate the bonded first and second substrates into a plurality of liquid crystal display cells;

injecting liquid crystal material into each of the liquid crystal display cells to form a liquid crystal material layer; and

inspecting the liquid crystal display cells.

Claim 22. (Currently Amended): A method of fabricating a liquid crystal display device, comprising:

supplying a first substrate and a second substrate separately into a single fabrication system;

forming an alignment layer on the first and second substrates separately in a first unit;
dispensing liquid crystal material onto one of the first substrate and the second substrate in a second unit;

coating a sealant material on one of the first substrate and the second substrate in a third unit;

bonding the first and second substrates together in a fourth unit; and

separating the bonded first and second substrates into a plurality of liquid crystal display cells in a fifth unit, the first, second, third, fourth and fifth units being physically connected along a single fabrication line of the fabrication system.

Claim 23. (Original): The method according to claim 22, further comprising:

forming a plurality of thin film transistors on the first substrate; and forming a color filter layer on the second substrate.

Claim 24. (Original): The method according to claim 22, further comprising:

forming patterned spacers on the first substrate before supply the first substrate to the unified fabrication system.

Claim 25. (Original): The method according to claim 22, wherein the forming an alignment layer includes:

coating an alignment layer material on the first and second substrates separately;

plasticizing the coated alignment layer material; and

providing an aligning controlling force to the plasticized alignment layer material.

Claim 26. (Original): The method according to claim 22, further comprising synchronizing movement of the first and second substrates by maintaining one of the first and second substrates in a buffer.

Claim 27. (Original): The method according to claim 22, further comprising inspecting the liquid crystal display cells.